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PERMAN AND GREEN
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EXAMINER

GRIER, L

ART UNIT	PAPER NUMBER
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2644

DATE MAILED:

09/17/01

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/019,614

Applicant(s)

KOSKI ET AL.

Examiner

Laura A Grier

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-30 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 16-30 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claims ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892)
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) ____.
- 18) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 19) ☐ Notice of Informal Patent Application (PTO-152)
- 20) ☐ Other: _____.

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DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 1-4 and 10-11** are rejected under 35 U.S.C. 102(e) as being anticipated by Wong et al. (U. S. Patent No. 5881103).

Regarding **claim 1**, Wong et al. discloses an electronic device with equalized audio accessory and method for same. Wong discloses in figure 2 a DSP-reference 220 (digital signal processor), radio accessory interface-reference 115, accessory device-reference 120 with memory-reference 220 for storing audio parameters (column 2, last paragraph) that are load into the DSP; and teaches two-way communication (col. 2, lines 24-28 and col. 3, lines 20-27). Further, Wong et al. teaches the audio parameters controlling processing in a digital signal processor, for it is inherent that only the parameters provided for the necessary function of the device will essential control the processing.

Regarding **claim 2**, Wong et al. further discloses radio accessory interface-reference 115, accessory device-reference 120 with memory-reference 220 for storing audio parameters (column 2, last paragraph) that are load into the DSP.

Regarding **claim 3**, Wong et al. further discloses radio accessory interface-reference 115 via signal lines 250 and 240 (figure 2) to accessory device-reference 120 with memory-reference 220 for storing audio parameters (column 2, last paragraph) that are load into the DSP.

Regarding **claim 4**, Wong et al. further discloses radio accessory interface-reference 115 via signal lines 250 and 240 (figure 2) to accessory device-reference 120 with memory-reference 220 (columns 2, last paragraph – column 3, line 5), which is indicative of a detection line and a connection bus transferring information between the electronic device and accessory device.

Regarding **claim 10**, Wong et al. further discloses (column 2, 2nd and last paragraph, column 4, line 40-45) indication of the parameters characterizing the accessory device.

Regarding **claim 11**, Wong et al. further discloses the DSP receiving audio parameters from the accessory device (figure 2 and column 3, 2nd paragraph).

3. **Claims 5-6 and 12-13** are rejected under 35 U.S.C. 102(e) as being anticipated by Wong et al.

Regarding **claim 5**, Wong et al. discloses an electronic device with equalized audio accessory and method for same. Wong discloses in figure 2 a DSP-reference 220 (digital signal processor), radio accessory interface-reference 115, accessory device-reference 120 with memory-reference 220 for storing audio parameters (column 2, last paragraph) that are load into the DSP; and controller including a microprocessor -

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teaches two-way communication (col. 2, lines 24-28 and col. 3, lines 20-27). Further, Wong et al. teaches the audio parameters controlling processing in a digital signal processor, for it is inherent that only the parameters provided for the necessary function of the device will essential control the processing.

Regarding **claim 6**, Wong et al. discloses everything claimed as applied above (see claim 5). Wong et al. further discloses radio accessory interface-reference 115 via signal lines 250 and 240 (figure 2) to accessory device-reference 120 with memory-reference 220 (columns 2, last paragraph – column 3, line 5), which is indicative of a detection line and a connection bus transferring information between the electronic device and accessory device.

Regarding **claim 12**, Wong et al. further discloses (column 2, 2nd and last paragraph, column 4, line 40-45) indication of the parameters characterizing the accessory device.

Regarding **claim 13**, Wong et al. further discloses the DSP receiving audio parameters from the accessory device (figure 2 and column 3, 2nd paragraph).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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5. **Claims 7-8** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wong et al. in view of Hallikainen et al. (U. S. Patent No. 5797102).

Regarding **claims 7 and 8**, Wong et al. discloses everything claimed as applied above (see claim 5). However, Wong et al. fails to specifically disclose a transmitter/receiver unit of a mobile station. The examiner maintains that disclosing a transmitter/receiver unit of a mobile station was well known in the art, as taught by Hallikainen et al.

Regarding the transmitter/receiver unit of a mobile station, in a similar field of endeavor, Hallikainen et al. further discloses the transmitter/receiver unit (RF unit) of a mobile station.

It would have been obvious to one of the ordinary skill in the art at the time the invention was to modify the invention of Wong et al. by providing a transmitter/receiver unit of a mobile station for the purpose of utilizing such electronic devices in handsfree communication environments.

Regarding **claim 9**, Wong et al. and Hallikaian et al. discloses everything claimed as applied above (see claim 8). Wong et al. discloses an accessory device with a microphone and speaker (figure 1-references 120 and 130).

6. **Claims 14-17, 23-24 and 27** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wong et al. in view of Johansson et al. (U.S. 5418837).

Regarding **claims 14, and 24**, Wong et al. discloses an electronic device with equalized audio accessory and method for same. Wong discloses in figure 2 a DSP-

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reference 220 (digital signal processor), radio accessory interface-reference 115, accessory device-reference 120 with memory-reference 220 for storing audio parameters (column 2, last paragraph) that are load into the DSP, in which the accessory memory (non-volatile memory-writable mass storage). However, Wong et al. fails to specifically disclose a writable storage separate from the processor that is disposed within the electronic device. The examiner maintains that such a writable mass storage was well known in the art.

Regarding the writable mass storage, Johansson et al. discloses a mobile telephone (electronic device) that includes a memory (figure 1B-reference 15) that constitutes as a writable mass storage separate from a processor.

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Wong et al. by implementing additional memory for the purpose of enhancing the transfer of data from one device to another with better efficiency.

Regarding **claim 16**, Wong-Johansson discloses everything claimed as applied above (see claim 14). Wong et al. further discloses radio accessory interface-reference 115 via signal lines 250 and 240 (figure 2) to accessory device-reference 120 with memory-reference 220 for storing audio parameters (column 2, last paragraph) that are load into the DSP.

Regarding **claim 17**, Wong-Johansson discloses everything claimed as applied above (see claim 14). Wong et al. further discloses radio accessory interface-reference

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115 via signal lines 250 and 240 (figure 2) to accessory device-reference 120 with memory-reference 220 (columns 2, last paragraph – column 3, line 5), which is indicative of a detection line and a connection bus transferring information between the electronic device and accessory device.

Regarding **claim 23**, Wong-Johansson discloses everything claimed as applied above (see claim 14). Wong et al. further discloses (column 2, 2nd and last paragraph, column 4, line 40-45) indication of the parameters characterizing the accessory device.

Regarding **claim 27**, Wong-Johansson discloses everything claimed as applied above (see claim 14). However, Wong-Johansson fails to specifically disclose the writable mass storage as FLASH memory. The examiner takes official notice that FLASH memory was well known in the art.

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Wong-Johansson by implementing a writable mass storage by use of FLASH memory wherein, FLASH, FLASH memory is a type of non-volatile memory in which data will not be erased without power, thus providing adequate and permanent storage of the data/parameters.

7. **Claims 18-19, 26 and 28** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wong et al. in view of Johansson et al.

Regarding **claims 18 and 26**, Wong et al. discloses an electronic device with equalized audio accessory and method for same. Wong discloses in figure 2 a DSP-

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reference 220 (digital signal processor), radio accessory interface-reference 115, accessory device-reference 120 with memory-reference 220 for storing audio parameters (column 2, last paragraph) that are load into the DSP, in which the accessory memory (non-volatile memory-writable mass storage). However, Wong et al. fails to specifically disclose a writable storage separate from the processor that is disposed within the electronic device. The examiner maintains that such a writable mass storage was well known in the art.

Regarding the writable mass storage, Johansson et al. discloses a mobile telephone (electronic device) that includes a memory (figure 1B-reference 15) that constitutes as a writable mass storage separate from a processor, and further inherently disclose means of loading the data into the writable mass storage.

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Wong et al. by implementing additional memory for the purpose of enhancing the transfer of data from one device to another with better efficiency.

Regarding **claim 19**, Wong discloses everything claimed as applied above (see claim 18). Wong et al. further discloses radio accessory interface-reference 115 via signal lines 250 and 240 (figure 2) to accessory device-reference 120 with memory-reference 220 (columns 2, last paragraph – column 3, line 5), which is indicative of a detection line and a connection bus transferring information between the electronic device and accessory device.

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Regarding **claim 28**, Wong-Johansson discloses everything claimed as applied above (see claim 18). However, Wong-Johansson fails to specifically disclose the writable mass storage as FLASH memory. The examiner takes official notice that FLASH memory was well known in the art.

It would have been obvious to one of the ordinary skill in the art at the time the invention was made to modify the invention of Wong-Johansson by implementing a writable mass storage by use of FLASH memory wherein, FLASH, FLASH memory is a type of non-volatile memory in which data will not be erased without power, thus providing adequate and permanent storage of the data/parameters.

8. **Claims 20-21** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wong et al. in view of Johansson et al. and further in view of Hallikainen et al. (hereinafter referred to as "Wong").

Regarding **claims 20 and 21**, Wong-Johansson discloses everything claimed as applied above (see claim 18). However, Wong-Johansson fails to specifically disclose a transmitter/receiver unit of a mobile station. The examiner maintains that disclosing a transmitter/receiver unit of a mobile station was well known in the art, as taught by Hallikainen et al.

Regarding the transmitter/receiver unit of a mobile station, in a similar field of endeavor, Hallikainen et al. further discloses the transmitter/receiver unit (RF unit) of a mobile station.

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It would have been obvious to one of the ordinary skill in the art at the time the invention was to modify the invention of Wong-Johansson by providing a transmitter/receiver unit of a mobile station for the purpose of utilizing such electronic devices in handsfree communication environments.

Regarding **claim 22**, Wong-Johansson discloses everything claimed as applied above (see claim 18). Wong et al. further discloses an accessory device with a microphone and speaker (figure 1-references 120 and 130).

Regarding **claim 25**, Wong-Johansson discloses everything claimed as applied above (see claim 18). Wong et al. further discloses (column 2, 2nd and last paragraph, column 4, line 40-45) indication of the parameters characterizing the accessory device.

9. **Claims 29-30** are rejected under 35 U.S.C. 103(a) as being unpatentable over Wong et al. in view of Johansson et al.

Regarding **claims 29-30**, Wong et al. discloses everything claimed as applied above (see claims 1 and 5, respectively). However, Wong et al. fails to specifically disclose a microcontroller in the accessory device. The examiner maintains that such a microcontroller was well known in the art.

Regarding the microcontroller, in a similar field of endeavor, Johansson et al. discloses a method and apparatus for upgrading cellular mobile telephones. Johansson et al.'s disclosure comprises a sum card that constitutes as an accessory device, wherein the sum card comprises a CPU (indicative of an microcontroller) for controlling interaction between the sum card and the telephone (figures 1A and 1B).

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It would have been obvious for one the ordinary skill in the art at the time the invention was made to modify the invention of Wong et al. by providing a CPU and/or microcontroller to the accessory device for the purpose of enabling the hand-shaking procedure between the two devices, as taught by Johansson et al.

Response to Arguments

10. Applicant's arguments filed on 06/25/01 have been fully considered but they are not persuasive.

Applicant argued that the reference of Wong et al. fails to support/teach the claimed invention, in particular to the limitations of the providing two-way communication between an electronic device and an accessory device, and a writable mass storage being separate from the process, yet disposed within the electronic device. The examiner has provided further support of Wong et al. and other references which the two-communication (hand-shaking) and the writable mass storage of the claimed invention.

Conclusion

11. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

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A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura A. Grier whose telephone number is (703) 306-4819. The examiner can normally be reached on Monday - Friday, 7:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W. Isen can be reached on (703) 305-4386. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4700.

LAG 
September 7, 2001


FORESTER W. ISEN
SUPERVISORY PATENT EXAMINER
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